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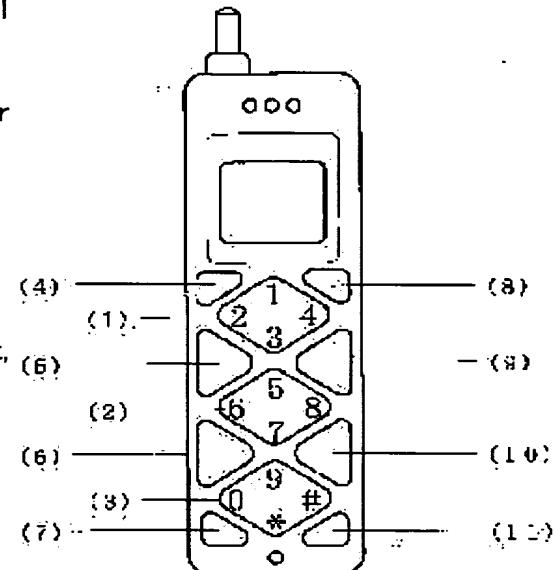
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(54) OPERATION PANEL FOR PORTABLE TELEPHONE SET

(57)Abstract:

PROBLEM TO BE SOLVED: To make an operation panel for portable telephone set easier to identify than conventional operation panels and enhance the operability of all control buttons, by reducing the number of dial control buttons used in conventional portable telephone sets.

SOLUTION: The operation panel for portable telephone set is constituted as follows: (1) Four dial control buttons conventionally used are contained in a large rhombus to put 12 dial control buttons together in three rhombuses, which are vertically arranged. (2) As a result, a large space is obtained for functional operation buttons, and thus large buttons and small buttons are formed according to the frequency of use thereof. (3) Numerals, characters, symbols, and the like indicated on the control and operation buttons are increased in size.



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(54)【発明の名称】 携帯電話機の操作パネル

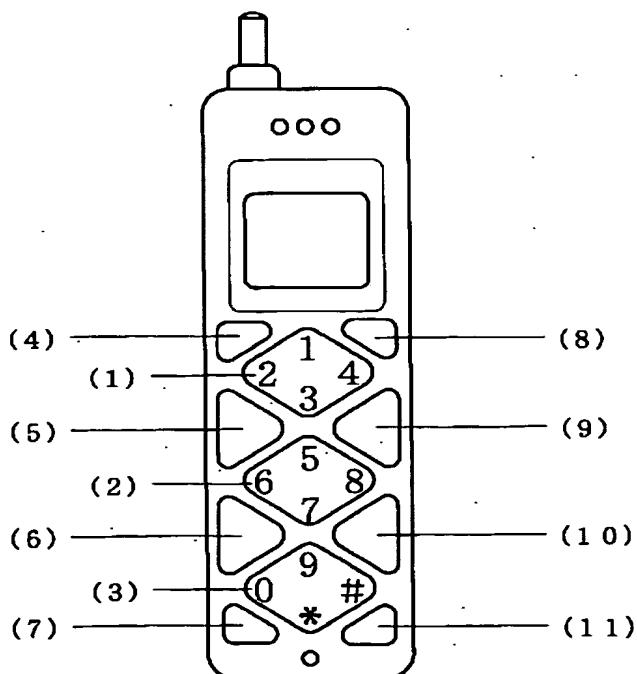
(57)【要約】 (修正有)

【課題】 従来の携帯電話機に使用されているダイヤル操作ボタン数を、集約する事によって従来の操作パネルより識別を容易にし、すべての操作ボタンの操作性を向上させる事を目的とする。

【解決手段】 (イ) 従来、使用されているダイヤル操作ボタン4個を、大きなひし形1個内に收め、12個ダイヤル操作ボタンを3個に集約して、縦状に配列する。

(ロ) 機能操作ボタンのスペースが大きく取れるので、使用頻度に応じた大、小のボタンを作る。

(ハ) 操作ボタンに表示する数字・文字・記号等を大きくする。



【特許請求の範囲】

【請求項1】従来のダイヤル操作ボタン4個分を、1つのひし形ダイヤル操作ボタンに収め、無駄なスペースを無くす事によって、各操作ボタンを大きくし、操作と表示文字等の識別を容易にした携帯電話機の操作パネルの配列。

【発明の詳細な説明】

【0001】

【発明の属する技術分野】本発明は携帯電話機に使用する操作ボタンの配列、及び操作性に関するものである。

【0002】

【従来の技術】従来の携帯電話機は操作ボタンがそれぞれに独立しているために、狭いスペース内に数多く配置されており、1つ1つの操作ボタンの大きさが大変に小さい。従って表示されている文字等も小さくなり識別が困難であった。又、それぞれの操作点間が短いので、誤操作の原因になっていた。

【0003】

【発明が解決しようとする課題】

(イ) 操作ボタン同志の間隔が狭いため操作性が悪い。
 (ロ) 1つ1つの操作ボタンが小さいために表示されている数字・文字・記号等までが小さくなり、大変、識別が困難になっている。
 (ハ) 各操作ボタンの操作点間を長くして、誤操作を防止する。
 (ニ) 4個の数字等を、それぞれ四隅に記したひし形ダイヤル操作ボタンにより、従来の操作ボタン間の隙間を無くしてスペースの有効活用を計ること。

【0004】

【課題を解決するための手段】(イ) 従来の設定されているダイヤル操作ボタン12個分(0~9・#・*)を、3つの大きなひし形ボタン内に収めてしまい、図1のように縦状に配列する。

(ロ) ひし形ダイヤル操作ボタンの構造は、中央を支点として四隅が作動が出来るようにし、ダイヤル操作ボタ

*ンの四隅の下部に、それぞれスイッチの接点を設ける。

(ハ) (イ)によってひし形ダイヤル操作ボタン以外の機能ボタンのスペースが左右に大きくとれることが出来るので、使用頻度に応じた大、小の操作ボタンを設ける事が出来る。

【0005】

【実施例】(イ) 図1の(1)~(3)に示すひし形ダイヤル操作ボタンを、電話機の中央に縦状に配列させる。

10 (ロ) (イ)を実施する事により、図1の(4)~(11)に示す機能操作ボタンを、配列する空間が左右に大きくとれる。

(ハ) 図1の(4)~(11)に示す機能操作ボタンを、大、小の二種類に分ける事が出来るので、使用頻度に応じて使い分けが出来る。

【0006】

【発明の効果】(イ) 図1に示す(1)~(3)のダイヤル操作ボタンを、ひし形にする事によって、従来の操作パネルよりダイヤル操作ボタンの数字・文字・記号等の表示を大きくして、見やすくする事が出来る。

(ロ) (イ)と同様にダイヤル操作ボタンが大きくなる事により、押しやすくする事が出来る。

(ハ) 図1の様に各操作ボタンを配列する事により、各操作点の間を長くする事が出来て、誤作動を防ぐ事が出来る。

【図面の簡単な説明】

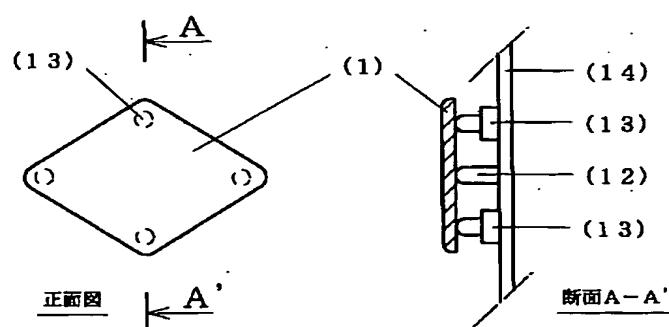
【図1】本発明の操作ボタンの配列図。

【図2】操作ボタンスイッチの原理断面図。

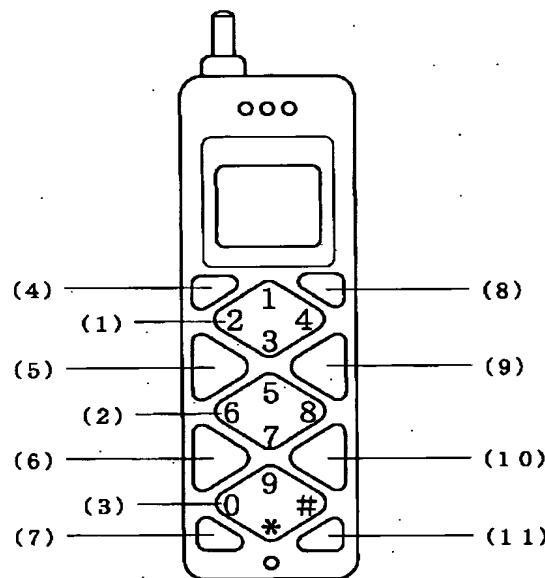
【符号の説明】

(1)~(3)はひし形ダイヤル操作ボタン。
 (4)~(11)は機能操作ボタン。
 (12)はダイヤル操作ボタンの支点。
 (13)はスイッチ。
 (14)は基板。

【図2】



【図1】



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CLAIMS

[Claim(s)]

[Claim 1]Arrangement of a navigational panel of a portable telephone which stored four conventional dial control buttons in one lozenge dial control button, enlarged each manual operation button by losing a useless space, and made discernment of operation, a printable character, etc. easy.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]**[0001]**

[Field of the Invention] This invention relates to the arrangement of the manual operation button used for a portable telephone, and operativity.

[0002]

[Description of the Prior Art] Since a manual operation button is alike, respectively and is independently, many conventional portable telephones are arranged in the narrow space, and their size of each manual operation button is very small. Therefore, the character etc. which are displayed became small and were difficult to identify. Since between each operating point was short, it had become a cause of the operation mistake.

[0003]**[Problem(s) to be Solved by the Invention]**

(b) Since a manual operation button comrade's interval is narrow, operativity is bad.

(**) Even the number, character, and sign currently displayed since each manual operation button is small become small, and discernment is difficult very much.

(**) Lengthen between the operating points of each manual operation button, and prevent an operation mistake.

(**) With the lozenge dial control button which described four numbers etc. in four corners, respectively, abolish the crevice between the conventional manual operation buttons, and measure effective use of a space.

[0004]

[Means for Solving the Problem] (**) Store 12 conventional dial control buttons (0-9 and #, *) set up in three big lozenge buttons, and arrange it in the shape of length like drawing 1.

(**) Be made to be possible [an operation of four corners] by making a center into a fulcrum, and structure of a lozenge dial control button provides a point of contact of a switch in the

lower part of four corners of a dial control button, respectively.

(**) Since a space between feature buttons other than a lozenge dial control button can take greatly right and left by (b), a manual operation button of size and smallness according to frequency in use can be provided.

[0005]

[Example](**) Make the lozenge dial control button shown in (1) - (3) of drawing 1 arrange in the center of telephone in the shape of length.

(**) By carrying out (**), the space to arrange can take the large functional manual operation button shown in (4) - (11) of drawing 1 right and left.

(**) Since the functional manual operation button shown in (4) - (11) of drawing 1 can be divided into two kinds, size and smallness, according to frequency in use, proper use is possible.

[0006]

[Effect of the Invention](**) By making into a lozenge the dial control button of (1) - (3) shown in drawing 1, the display of the number, character, sign, etc. of a dial control button can be enlarged, and can be made more legible than the conventional navigational panel.

(**) It can be made easy to push, when a dial control button becomes large like (b).

(**) By arranging each manual operation button like drawing 1, during each operating point can be lengthened and malfunction can be prevented.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] The arrangement figure of the manual operation button of this invention.

[Drawing 2] The principle sectional view of an operation button switch.

[Description of Notations]

- (1) - (3) is a lozenge dial control button.
- (4) - (11) is a functional manual operation button.
- (12) is a fulcrum of a dial control button.
- (13) switches.
- (14) is a substrate.

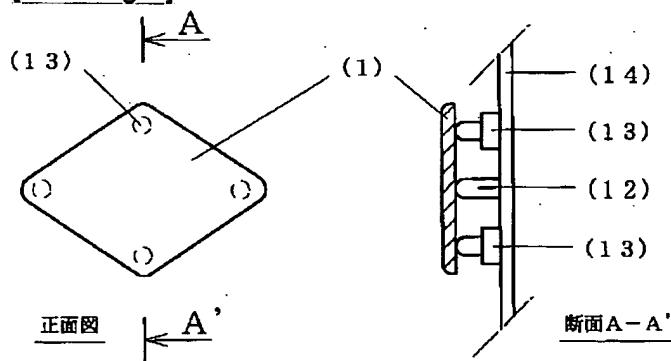
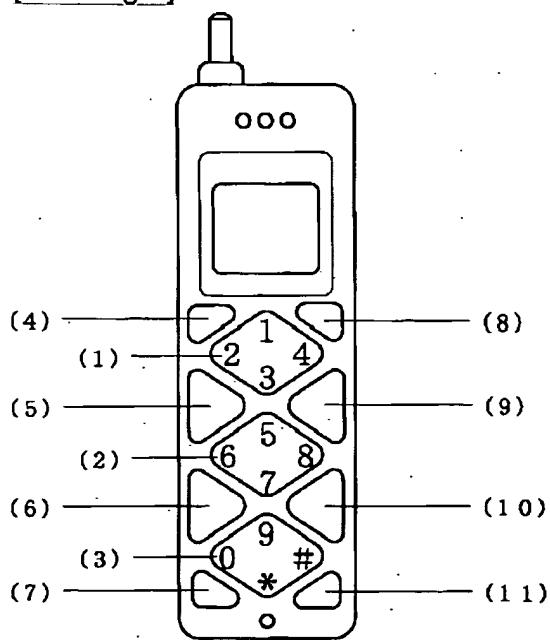
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DRAWINGS

[Drawing 2]**[Drawing 1]**

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